## Citi Prime Finance | Market Commentary

www.citigroupgcib.com | Report Date: April 2013

# **Hedge Fund Industry Snapshot**

## Data as of March 2013

Americas New York:

San Francisco: +415 617-8554

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**EMEA** 

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Hong Kong: +852 2501-8356 Tokyo: +813 6270-3165 Singapore: +65 6432-1223 Australia: +612 8225-6424

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## Highlights

#### Performance, AUM & Flows

- Composite hedge fund performance, equal-weighted across funds, was up in March 2013 with performance ranging from +0.72% to +1.45%. Returns were higher than the previous month which experienced +0.29% to +0.69% over the same period.
- Hedge fund strategy wise, top performing strategies in March 2013 include Equity Long/Short +1.83%, Distressed +1.63%, Multi Strategy +1.37%, Event Driven + 1.26% and Global Macro at +0.97%. The lowest performing strategies include Dedicated Short -3.2%, Emerging Markets -0.51% and CTA/Managed Futures at +0.50%.
- According to eVestment|HFN, industry assets for March 2013 increased for the fifth consecutive month, finishing net positive at +\$9.13 billion. Gains were solely attributed solely to performance totaling +\$20.84 billion while net negative investor flows accounted for -\$11.71 billion.
- Net negative investor flows of -\$11.71 billion for March 2013 marks the first period of net negative flows since December 2012 which experienced \$12.76 billion. March 2013 flows stand in contrast to mean monthly flows for 2012 which stood at +\$2.2 billion.

#### **Fund Profiles**

- Across the subset of hedge funds reporting performance and AUM, the monthly median performance for large single funds (>\$500 million) was +1.2%, medium single funds (\$100-\$500 million) +1.0% and small single funds (<\$100 million) +1.0%.
- Liquidity terms continued its consistent pattern from the recent reporting periods showing little changes to redemption notice periods with 66% of funds requiring 30 days or less notice for redemption. Across the entire subset of reporting funds, the majority (52%) required no lockup (43%) or less than 1 year lock up (9%).
- Consistent throughout recent reporting periods, large funds (>\$500 million AUM) continue to hold a large portion of industry AUM (71%) compared to medium funds (\$100–\$500 million) at 20% and small funds (<\$100 million) holding only 9%.

#### Leverage, Shorts and Futures Market Positioning

- On a global basis, we calculate gross leverage (as measured on a mean basis) at 1.76x in March 2013 versus 1.73x in February and 1.71x in January.
- Looking across both long leverage and gross leverage, the following strategies showed the highest uses of leverage: Equity Market Neutral (4.48x), Global Macro (3.91x), Convertible Arbitrage (3.58x), and Multi Strategy (3.29x).
- Citi US short flows data included in this month's report show continued interest in the Consumer Discretionary and Financials sectors. These two
  sectors accounted for 34.69% of short executions and 25.72% of short covers in March versus 29.84 % of short executions and 30.29% of short
  covers in February 2013
- The biggest mover in large speculator (non-commercial) net positioning (Futures & Options) between end- March and end-February was in the EuroFX contracts with a rebuild in net- shorts to -8.9% of total open interest. Positioning in the S&P, Gold & TY contracts didn't move too much.



# Hedge Fund Industry: AUM, Performance

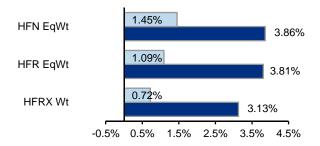
- Composite hedge fund performance, equal-weighted across funds, was up in March 2013 with performance ranging from +0.72% to +1.45%. Returns were higher than the previous month (February 2013 which experienced +0.29% to +0.69% over the same period).
- Global financial markets continued to extend gains through March as developed markets generally outperformed emerging markets, with US equities including both Dow Jones Industrial Average and S&P 500 closing the month and concluding 1Q13 at all-time record levels. Broad based March gains in US were led by Technology, Cyclical and Energy, with additional strength from Financials, Commodity and Small Cap exposures. Banks in Cyprus were closed for an extended period in March, as lenders, creditors, depositors and legislators negotiated a bailout for the EU member's largest banks to avoid a banking collapse. Both European and Asian equities posted mixed performance in March; Japan continued to lead Asian & global equity performance for 2013, with the Nikkei gaining over 8% for the month and 20% for the quarter, Australia, China, Hong Kong and Korea posted declines in March. The US dollar extend gains against the Euro, British Pound Sterling, and Japanese Yen, reaching highs of 4, 33 and 45 months, respectively.
- Hedge fund strategy wise, top performing strategies in March 2013 include Equity Long/Short +1.83%, Distressed +1.63%, Multi Strategy +1.37%, Event Driven + 1.26% and Global Macro at +0.97%. The lowest performing strategies include Dedicated Short -3.2%, Emerging Markets -0.51% and CTA/Managed Futures at +0.50%.

#### **Monthly Industry AUM and Performance**



Source: eVestment|HFN; Hedge Fund Research, Inc., © 2012.

#### **Industry Performance: Mar 13 / YTD**



Mar-13 \_\_\_\_\_ 2013 \_\_\_\_

Source: HFR, eVestment|HFN.

#### **Note Pad**

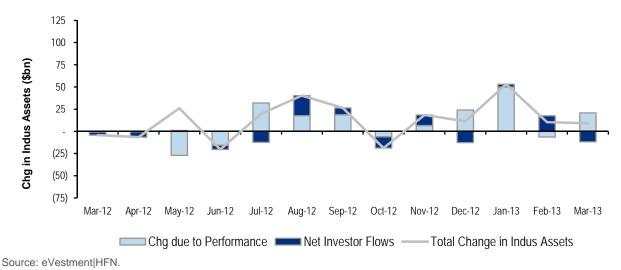
- MSCI World Index: +2.4%; +7.7% YTD
- MSCI EM Index: -1.9%; -1.8% YTD
- S&P 500: +3.8%; +10.3% YTD
- Citi US BIG Index: +0.1%: -0.2% YTD
- S&P GSCI: +0.8%; +0.7% YTD
- US Dollar Index: +1.3%; +4.0% YTD
- HFN Country Indices Mar-13/ YTD:
  - Brazil: -1.71% /+1.56%; Australia: +2.52% /-1.57%;
  - China: -1.94%/+2.47%; Japan: +5.34%/+12.63%



# Hedge Fund Industry: Change in Industry Assets

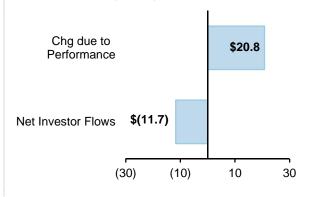
- According to eVestment|HFN, industry assets for March 2013 increased for the fifth consecutive month, finishing net positive at +\$9.13 billion. Gains were solely attributed solely to performance totaling +\$20.84 billion while net negative investor flows accounted for -\$11.71 billion.
- March performance gains were the highest since January of this year and exceeded the mean monthly performance of 2012 which stood at +\$9.7 billion. March 2013 performance gains were higher March 2012 which experience \$-0.94 billion over the same period.
- Net negative investor flows of -\$11.71 billion for March 2013 marks the first period of net negative flows since December 2012 which experienced -\$12.76 billion. March 2013 flows stand in contrast to mean monthly flows for 2012 which stood at +\$2.2 billion. March 2012 net flows were -\$3.23 billion over the same period.
- Total industry AUM now stands at \$2.66 trillion for March 2013 an increase of +2.5% from December 2012 and an increase of +4.4% from March 2012. Industry AuM remains below its \$2.94 trillion June 2008 peak.

#### **Monthly Change in Industry Assets and Composition**



#### **Composition of Change in Assets**

Mar-13 Amounts in (\$ Billion)



Source: eVestment|HFN.

#### **Note Pad**

 The Citi Prime Finance calculation for gross leverage (as measured on a mean basis) 1.76x in March 2013 versus 1.73x in February, and 1.71x in January.

Gross leverage (mean): defined as sum of (LMV + abs SMV)/Net Equity

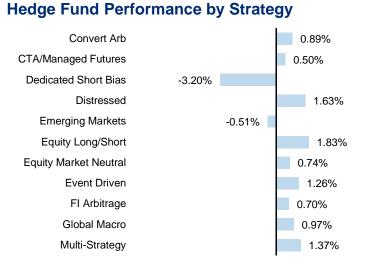


# Hedge Fund Stats by Strategy

#### **Hedge Fund Strategy Breakdown by Assets**



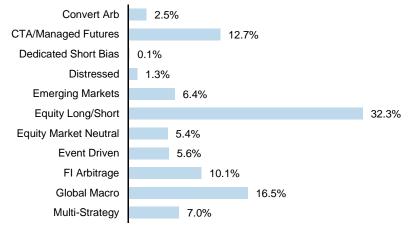
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Source: Citi Prime Finance.

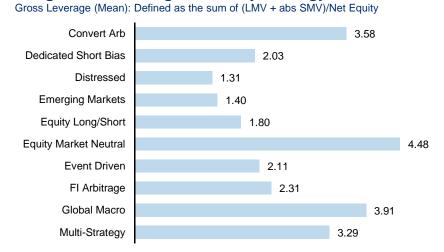
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

#### **Hedge Fund Strategy Breakdown by Number of Funds**



Source: Citi Prime Finance.

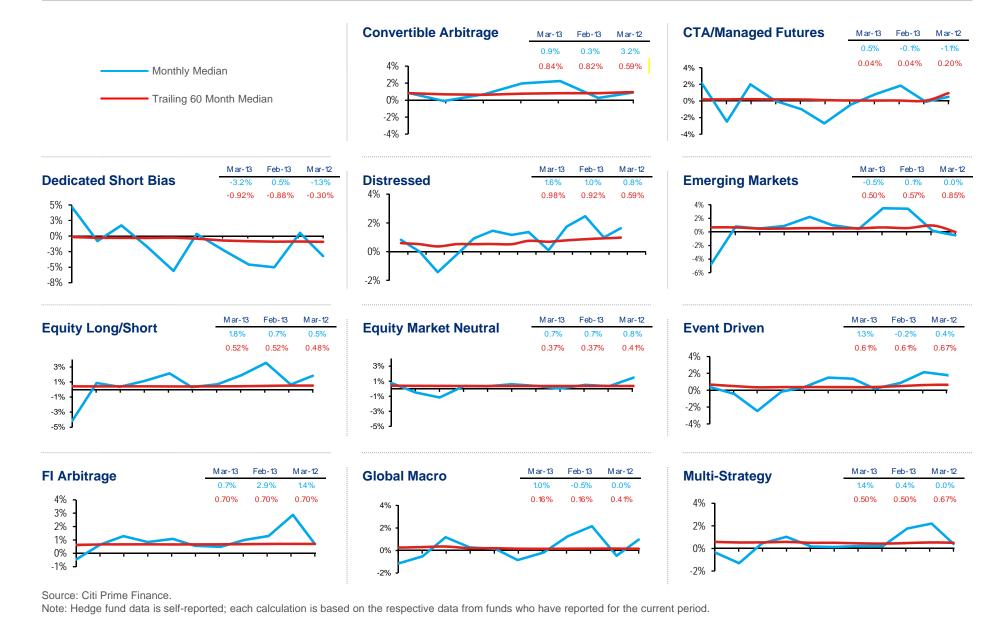
#### **Hedge Fund Leverage Ratios by Strategy**



Source: Citi Prime Finance.



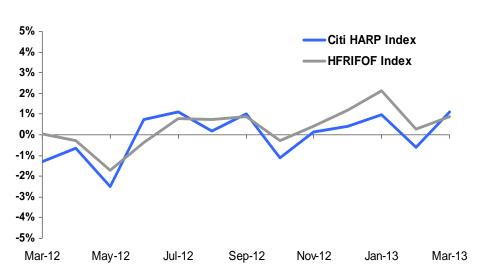
# Monthly Performance by Strategy





# Citi Liquid Hedge Fund Replicator (HARP)

## Citi HARP Index vs. Benchmark (monthly rolling)



Citi HARP is a liquid investable index, which aims at approximating the performance of the hedge fund sector

|           | Mar-13 | Feb-13 | Mar-12 | YTD-13 |
|-----------|--------|--------|--------|--------|
| Citi Harp | 1.11%  | -0.60% | -1.30% | 1.48%  |
| HFRIFOF   | 0.90%  | 0.30%  | 0.05%  | 3.36%  |

Source: Citi and Hedge Fund Research, Inc., © www.hedgefundresearch.com HFRIFOF Index is the HFRI Funds of Funds Composite Index

| Annualized Performance: Last 12-Month | Citi HARP<br>Index | HFRIFOF |
|---------------------------------------|--------------------|---------|
| Annualised Return                     | 0.76%              | 4.78%   |
| Annualised Volatility                 | 3.81%              | 3.35%   |
| Sharpe Ratio                          | 0.18               | 1.50    |
| Correlation                           | 81%                | -       |

The purpose of the Index is to approximate in broad terms the performance of the hedge fund sector by achieving a similarity between the pattern of the returns of the Index and the pattern of the returns of a Benchmark - the HFRI Fund of Funds Composite Index.

The Index contains weighted components. The components are a money market component and various index components. Each index component represents a class of asset in which the hedge fund sector is assumed to invest: bond, commodity, equity and foreign exchange.

The weighting within the Index of each component is determined monthly. Every month, a multiple linear regression algorithm is used to identify the appropriate weighting.

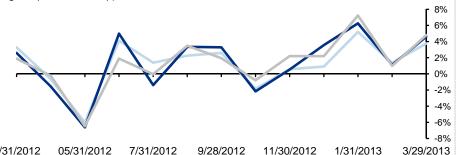


# **Market Performance**

05/31/2012 7/31/2012

#### **US Equities**

(Large Cap vs. Small Cap)



|          | Mar-13 | Feb-13 | Mar-12 | YTD-13 |
|----------|--------|--------|--------|--------|
| S&P 500  | 3.8%   | 1.4%   | 3.3%   | 10.3%  |
| RUS 2000 | 4.6%   | 1.1%   | 2.6%   | 12.0%  |
| S&P Mid  | 4.8%   | 1.0%   | 1.9%   | 13.0%  |

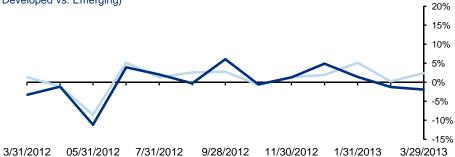
9/28/2012

11/30/2012

1/31/2013

#### **Global Equities**

Developed vs. Emerging)



|            | Mar-13 | Feb-13 | Mar-12 | YTD-13 |
|------------|--------|--------|--------|--------|
| MSCI World | 2.4%   | 0.2%   | 1.3%   | 7.7%   |
| MSCI EM    | -1.9%  | 1.4%   | -3.3%  | -1.8%  |

#### **Fixed Income**

(High-Grade vs. High-Yield)



|                    | Mar-13 | Feb-13 | Mar-12 | YTD-13 |
|--------------------|--------|--------|--------|--------|
| Citi US BIG Index  | 0.1%   | 0.5%   | -0.6%  | -0.2%  |
| Citi HY Bond Index | 1.1%   | 0.4%   | -0.1%  | 2.8%   |

Source: Citi Prime Finance; FactSet; Citigroup Index LLC.

#### **Commodities**

(US\$ Performance)

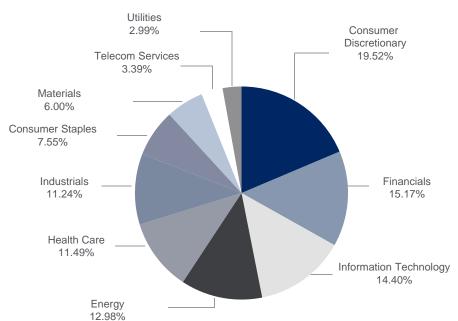


|             | Mar-13 | Feb-13 | Mar-12 | YTD-13 |
|-------------|--------|--------|--------|--------|
| S&P GSCI    | 0.8%   | -4.4%  | -2.4%  | 0.7%   |
| US-\$ Index | 1.3%   | 3.5%   | 1.0%   | 4.0%   |
| US 2yr Note | 0.2%   | 0.2%   | 0.3%   | 0.8%   |



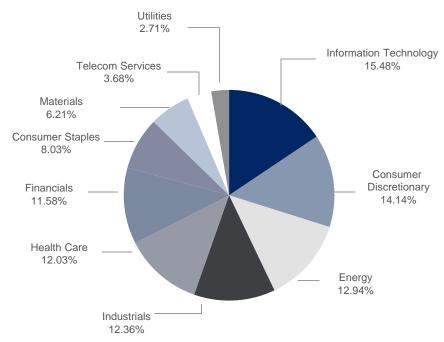
# **US Securities Lending Sector Short Flows**

#### **Short Sale Executions**



| Utilities<br>2.99% — | Consumer<br>Discretionary     |     |
|----------------------|-------------------------------|-----|
| ecom Services        | 19.52%                        |     |
| 3.39%                |                               |     |
|                      | Financials 15.17%             |     |
| rgy<br>8%            | Information Technol<br>14.40% | ogy |

#### **Short Cover Executions**



|                        |                   | % Previous Month | % Change From  |
|------------------------|-------------------|------------------|----------------|
| Sector Short Flows     | % Short Execution | Short Execution  | Previous Month |
| Consumer Discretionary | 19.52             | 16.91            | 15.43          |
| Financials             | 15.17             | 12.93            | 17.32          |
| Information Technology | 14.40             | 13.19            | 9.17           |
| Energy                 | 12.98             | 13.39            | -3.06          |
| Health Care            | 11.49             | 11.72            | -1.96          |
| Industrials            | 11.24             | 12.28            | -8.47          |
| Consumer Staples       | 7.55              | 8.69             | -13.12         |
| Materials              | 6.00              | 6.32             | -5.06          |
| Telecom Services       | 3.39              | 1.67             | 102.99         |
| Utilities              | 2.99              | 2.92             | 2.40           |
|                        |                   |                  |                |

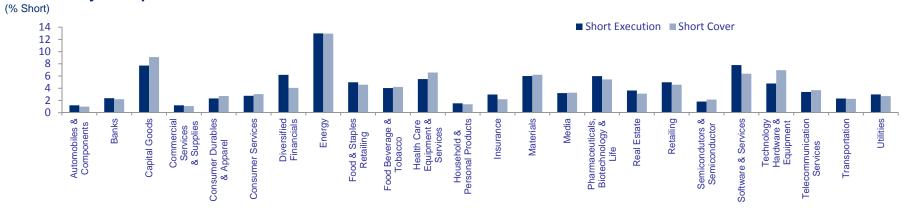
| Sector Short Flows     | % Cover Execution | % Previous Month<br>Short Cover | % Change From<br>Previous Month |
|------------------------|-------------------|---------------------------------|---------------------------------|
| Information Technology | 15.48             | 12.63                           | 22.57                           |
| Consumer Discretionary | 14.14             | 15.55                           | 5-9.07                          |
| Energy                 | 12.94             | 13.03                           | -0.69                           |
| Industrials            | 12.36             | 13.98                           | -11.59                          |
| Health Care            | 12.03             | 11.74                           | 2.47                            |
| Financials             | 11.58             | 14.74                           | -21.44                          |
| Consumer Staples       | 8.03              | 7.12                            | 12.78                           |
| Materials              | 6.21              | 6.34                            | -2.05                           |
| Telecom Services       | 3.68              | 2.51                            | 46.61                           |
| Utilities              | 2.71              | 2.35                            | 15.32                           |

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.



# US Securities Lending Industry Group Short Flows

## **Citi Industry Group Short Flows**



| Industry                              | % Short Execution | % Previous Month Short Execution | % Change From<br>Previous Month |
|---------------------------------------|-------------------|----------------------------------|---------------------------------|
| Energy                                | 12.98             | 13.39                            | -3.06                           |
| Software & Services                   | 7.80              | 6.13                             | 27.24                           |
| Capital Goods                         | 7.72              | 9.03                             | -14.51                          |
| Automobiles & Components              | 6.97              | 1.52                             | 358.55                          |
| Diversified Financials                | 6.20              | 4.27                             | 45.20                           |
| Materials                             | 6.00              | 6.32                             | -5.06                           |
| Pharmaceuticals, Biotechnology & Life | 5.99              | 5.26                             | 13.88                           |
| Health Care Equipment & Services      | 5.50              | 6.45                             | -14.73                          |
| Retailing                             | 4.98              | 4.19                             | 18.85                           |
| Technology Hardware and Equipment     | 4.78              | 4.22                             | 13.27                           |
| Food Beverage & Tobacco               | 4.04              | 5.14                             | -21.40                          |
| Real Estate                           | 3.63              | 3.50                             | 3.71                            |
| Telecom Services                      | 3.39              | 1.67                             | 102.99                          |
| Media                                 | 3.21              | 5.03                             | -36.18                          |
| Utilities                             | 2.99              | 2.92                             | 2.40                            |
| Insurance                             | 2.97              | 1.82                             | 63.19                           |
| Consumer Services                     | 2.76              | 3.71                             | -25.61                          |
| Banks                                 | 2.37              | 3.34                             | -29.04                          |
| Consumer Durables & Apparel           | 2.33              | 2.44                             | -4.51                           |
| Transportation                        | 2.32              | 2.16                             | 7.41                            |
| Food & Staples Retailing              | 1.98              | 2.18                             | -9.17                           |
| Semiconductors and Semiconductor      | 1.82              | 2.84                             | -35.92                          |
| Household & Personal Products         | 1.53              | 1.37                             | 11.68                           |
| Commercial Services & Supplies        | 1.20              | 1.09                             | 10.09                           |

|                                       |                   | % Previous Month | % Change From  |
|---------------------------------------|-------------------|------------------|----------------|
| Industry                              | % Cover Execution | Short Cover      | Previous Month |
| Energy                                | 12.94             | 13.03            | -0.69          |
| Capital Goods                         | 9.10              | 9.74             | -6.57          |
| Technology Hardware and Equipment     | 6.96              | 4.74             | 46.84          |
| Health Care Equipment & Services      | 6.58              | 6.07             | 8.40           |
| Software & Services                   | 6.38              | 5.57             | 14.54          |
| Materials                             | 6.21              | 6.34             | -2.05          |
| Pharmaceuticals, Biotechnology & Life | 5.45              | 5.67             | -3.88          |
| Retailing                             | 4.59              | 4.35             | 5.52           |
| Food Beverage & Tobacco               | 4.22              | 3.82             | 10.47          |
| Diversified Financials                | 4.06              | 5.13             | -20.86         |
| Telecom Services                      | 3.68              | 2.51             | 46.61          |
| Media                                 | 3.27              | 4.47             | -26.85         |
| Real Estate                           | 3.12              | 3.91             | -20.20         |
| Consumer Services                     | 3.04              | 3.17             | -4.10          |
| Consumer Durables & Apparel           | 2.73              | 2.15             | 26.98          |
| Utilities                             | 2.71              | 2.35             | 15.32          |
| Food & Staples Retailing              | 2.45              | 1.68             | 45.83          |
| Transportation                        | 2.27              | 3.16             | -28.16         |
| Insurance                             | 2.20              | 2.24             | -1.79          |
| Banks                                 | 2.20              | 3.47             | -36.60         |
| Semiconductors and Semiconductor      | 2.15              | 2.33             | -7.73          |
| Household & Personal Products         | 1.37              | 1.61             | -14.91         |
| Automobiles & Components              | 1.26              | 1.41             | -10.64         |
| Commercial Services & Supplies        | 0.99              | 1.09             | -9.17          |

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.



# **US Securities Lending Short Flows Summary**

Citi Short Flows: March 2013

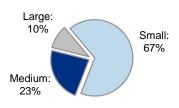
|                     |  | % Short Executions | % Short Executions | % Change From | % Short Cover | % Short Cover   | % Change From |
|---------------------|--|--------------------|--------------------|---------------|---------------|-----------------|---------------|
| GICS Code           | Description                                    | This Month         | From Last Month    | Last Month    | This Month    | From Last Month | Last Month    |
| Sector              | Sector   |                    |                    |               |               |                 |               |
| 10                  | Energy   | 12.98              | 13.39              | -3.06         | 12.94         | 13.03           | -0.69         |
| 15                  | Materials                                      | 6.00               | 6.32               | -5.06         | 6.21          | 6.34            | -2.05         |
| 20                  | Industrials                                    | 11.24              | 12.28              | -8.47         | 12.36         | 13.98           | -11.59        |
| 25                  | Consumer Discretionary                         | 19.52              | 16.91              | 15.43         | 14.14         | 15.55           | -9.07         |
| 30                  | Consumer Staples                               | 7.55               | 8.69               | -13.12        | 8.03          | 7.12            | 12.78         |
| 35                  | Health Care                                    | 11.49              | 11.72              | -1.96         | 12.03         | 11.74           | 2.47          |
| 40                  | Financials                                     | 15.17              | 12.93              | 17.32         | 11.58         | 14.74           | -21.44        |
| 45                  | Information Technology                         | 14.40              | 13.19              | 9.17          | 15.48         | 12.63           | 22.57         |
| 50                  | Telecommunication Services                     | 3.39               | 1.67               | 102.99        | 3.68          | 2.51            | 46.61         |
| 55                  | Utilities                                      | 2.99               | 2.92               | 2.40          | 2.71          | 2.35            | 15.32         |
| la di cata i Occion |  |                    |                    |               |               |                 |               |
| Industry Group      | Industry Group                                 | 40.00              | 40.00              | 0.00          | 1004          | 40.00           | 0.00          |
| 1010                | Energy   | 12.98              | 13.39              | -3.06         | 12.94         | 13.03           | -0.69         |
| 1510                | Materials                                      | 6.00               | 6.32               | -5.06         | 6.21          | 6.34            | -2.05         |
| 2010                | Capital Goods                                  | 7.72               | 9.03               | -14.51        | 9.10          | 9.74            | -6.57         |
| 2020                | Commercial Services & Supplies                 | 1.20               | 1.09               | 10.09         | 0.99          | 1.09            | -9.17         |
| 2030                | Transportation                                 | 2.32               | 2.16               | 7.41          | 2.27          | 3.16            | -28.16        |
| 2510                | Automobiles & Components                       | 6.97               | 1.52               | 358.55        | 1.26          | 1.41            | -10.64        |
| 2520                | Consumer Durables & Apparel                    | 2.33               | 2.44               | -4.51         | 2.73          | 2.15            | 26.98         |
| 2530                | Consumer Services                              | 2.76               | 3.71               | -25.61        | 3.04          | 3.17            | -4.10         |
| 2540                | Media  | 3.21               | 5.03               | -36.18        | 3.27          | 4.47            | -26.85        |
| 2550                | Retailing                                      | 4.98               | 4.19               | 18.85         | 4.59          | 4.35            | 5.52          |
| 3010                | Food & Staples Retailing                       | 1.98               | 2.18               | -9.17         | 2.45          | 1.68            | 45.83         |
| 3020                | Food Beverage & Tobacco                        | 4.04               | 5.14               | -21.40        | 4.22          | 3.82            | 10.47         |
| 3030                | Household & Personal Products                  | 1.53               | 1.37               | 11.68         | 1.37          | 1.61            | -14.91        |
| 3510                | Health Care Equipment & Services               | 5.50               | 6.45               | -14.73        | 6.58          | 6.07            | 8.40          |
| 3520                | Pharmaceuticals, Biotechnology & Life Sciences | 5.99               | 5.26               | 13.88         | 5.45          | 5.67            | -3.88         |
| 4010                | Banks  | 2.37               | 3.34               | -29.04        | 2.20          | 3.47            | -36.60        |
| 4020                | Diversified Financials                         | 6.20               | 4.27               | 45.20         | 4.06          | 5.13            | -20.86        |
| 4030                | Insurance                                      | 2.97               | 1.82               | 63.19         | 2.20          | 2.24            | -1.79         |
| 4040                | Real Estate                                    | 3.63               | 3.50               | 3.71          | 3.12          | 3.91            | -20.20        |
| 4510                | Software & Services                            | 7.80               | 6.13               | 27.24         | 6.38          | 5.57            | 14.54         |
| 4520                | Technology Hardware & Equipment                | 4.78               | 4.22               | 13.27         | 6.96          | 4.74            | 46.84         |
| 4530                | Semiconductors & Semiconductor Equipment       | 1.82               | 2.84               | -35.92        | 2.15          | 2.33            | -7.73         |
| 5010                | Telecommunication Services                     | 3.39               | 1.67               | 102.99        | 3.68          | 2.51            | 46.61         |
| 5510                | Utilities                                      | 2.99               | 2.92               | 2.40          | 2.71          | 2.35            | 15.30         |

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.



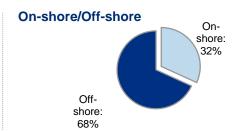
# Hedge Fund (Fund Level) Profiles

#### By Fund Size—No. of Funds

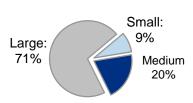


#### **Redemption Notice Period**

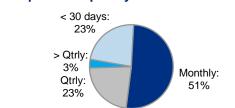




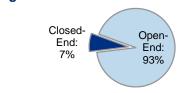
#### By Fund Size—\$ AUM



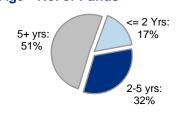
#### **Redemption Frequency**



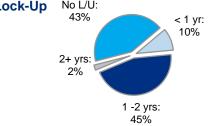
#### **Legal Status**

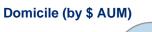


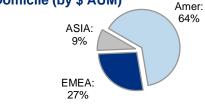
#### By Fund Age—No. of Funds



## Lock-Up No L/U: 43%







#### By Fund Age—\$ AUM



#### **Minimum Investment**



Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# Hedge Fund (Fund Level) Profiles

#### **Hedge Funds: Large (>\$500 Million)**

|             |            | Median<br>AUM | Median<br>Monthly | Median<br>YTD | Domicile:<br>Americas | Off-  | Preferred<br>Lock-Up / | Redemption<br>Notice/ | Redemption Frequency/ |
|-------------|------------|---------------|-------------------|---------------|-----------------------|-------|------------------------|-----------------------|-----------------------|
|             | % of Total | (\$MM)        | <b>Perform</b>    | Perform       | Region                | Shore | % of Total             | % of Total            | % of Total            |
| Under 2 yrs | 4%         | \$976         | 0.7%              | 2.2%          | 72%                   | 98%   | 1-2 yrs / 76%          | 7-30 days / 69%       | Monthly / 56%         |
| 2-5 yrs     | 21%        | \$1,259       | 1.1%              | 3.3%          | 70%                   | 63%   | 1-2 yrs / 79%          | 60+ days / 31%        | Monthly / 40%         |
| Over 5 yrs  | 76%        | \$2,100       | 1.2%              | 4.1%          | 66%                   | 72%   | 1-2 yrs / 41%          | 7-30 days / 32%       | Monthly / 47%         |
| Total       | 100%       | \$1,884       | 1.2%              | 3.9%          | 68%                   | 69%   | 1-2 years / 51%        | 7-30 days / 34%       | Monthly / 48%         |

## Hedge Funds: Medium (\$100-\$500 Million)

|                       |            | Median | Median  | Median  | Domicile: | 0"    | Preferred     | Preferred Redemption | Preferred<br>Redemption |
|-----------------------|------------|--------|---------|---------|-----------|-------|---------------|----------------------|-------------------------|
|                       |            | AUM    | Monthly | YTD     | Americas  | Off-  | Lock-Up /     | Notice/              | Frequency/              |
| <b>Hedge Fund Age</b> | % of Total | (\$MM) | Perform | Perform | Region    | Shore | % of Total    | % of Total           | % of Total              |
| Under 2 yrs           | 7%         | \$196  | 0.8%    | 3.3%    | 71%       | 84%   | 1-2 yrs / 75% | 7-30 days / 52%      | Under 30 / 51%          |
| 2-5 yrs               | 27%        | \$231  | 0.9%    | 3.4%    | 70%       | 73%   | 1-2 yrs / 66% | 7-30 days / 41%      | Monthly / 49%           |
| Over 5 yrs            | 66%        | \$231  | 1.0%    | 4.3%    | 70%       | 65%   | No / 52%      | 7-30 days / 48%      | Under 30 / 57%          |
| Total                 | 100%       | \$229  | 1.0%    | 4.0%    | 71%       | 68%   | No / 44%      | 7-30 days / 46%      | Monthly / 52%           |

## Hedge Funds: Small (<\$100 Million)

|                       |            |            |         |         |                 |       |                  | rieleneu        | rieleneu      |
|-----------------------|------------|------------|---------|---------|-----------------|-------|------------------|-----------------|---------------|
|                       |            | Median     | Median  | Median  | Domicile:       |       | <b>Preferred</b> | Redemption      | Redemption    |
|                       |            | <b>AUM</b> | Monthly | YTD     | <b>Americas</b> | Off-  | Lock-Up /        | Notice/         | Frequency/    |
| <b>Hedge Fund Age</b> | % of Total | (\$MM)     | Perform | Perform | Region          | Shore | % of Total       | % of Total      | % of Total    |
| Under 2 yrs           | 13%        | \$25       | 0.5%    | 2.4%    | 87%             | 79%   | 1-2 yrs / 71%    | 7-30 days / 32% | Monthly / 44% |
| 2-5 yrs               | 30%        | \$31       | 0.9%    | 3.6%    | 64%             | 78%   | 1-2 yrs / 63%    | 7-30 days / 43% | Monthly / 52% |
| Over 5 yrs            | 57%        | \$35       | 1.1%    | 3.8%    | 68%             | 65%   | No / 42%         | 7-30 days / 55% | Monthly / 54% |
| Total                 | 100%       | \$32       | 1.0%    | 3.6%    | 67%             | 73%   | 1-2 yrs / 46%    | 7-30 days / 50% | Monthly / 52% |
|                       |            |            |         |         |                 |       |                  |                 |               |

Source: Citi Prime Finance.

Note: Domiciles, lock-up and redemption metrics updated quarterly. Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. Median YTD performance is calculated from funds reporting for all underlying periods. "n/m" = Not Meaningful.

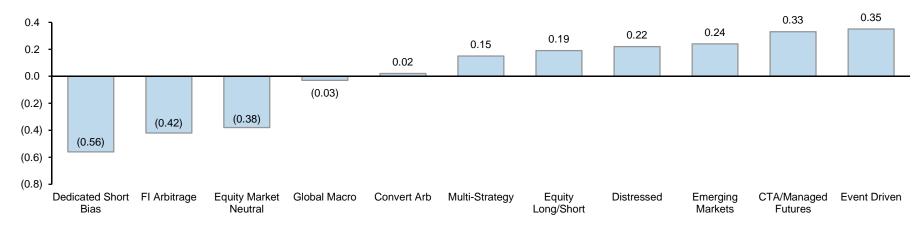


Preferred

Preferred

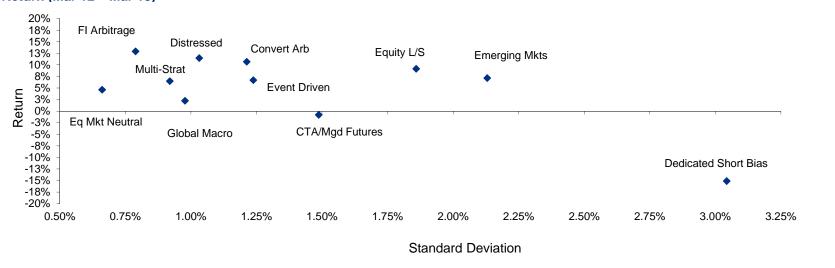
## Risk and Return Metrics

#### **Sharpe Ratios (Oct-04 - Mar-13)**



Source: Credit Suisse Tremont.

#### Risk vs. Return (Mar 12 - Mar 13)



Source: Citi Prime Finance.

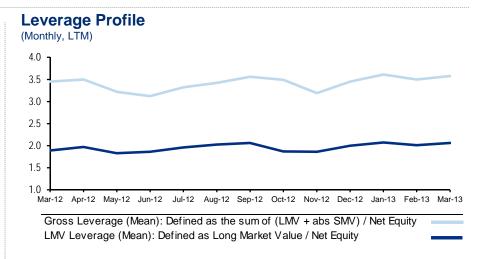


# Convertible Arbitrage

|                     | Jan  | Feb  | Mar  | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | YTD  |
|---------------------|------|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|------|
| Citi-derived Median | 2.3% | 0.3% | 0.9% |     |     |     |     |     |      |     |     |     | 3.4% |

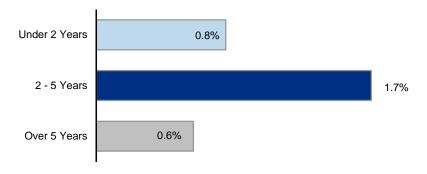


Source: Citi ICG Analytics; FactSet.

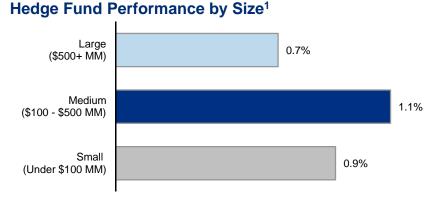


Source: Citi Prime Finance.

#### Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.



Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# CTA/Managed Futures

|                     | Jan  | Feb   | Mar  | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | YTD  |
|---------------------|------|-------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|------|
| Citi-derived Median | 1.8% | -0.1% | 0.5% |     |     |     | •   |     |      |     |     | •   | 2.2% |

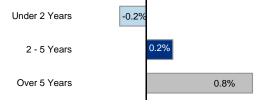


-15.0% Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Jan-13 Feb-13 Mar-13

|                             | Mar-13 | Feb-13 | Mar-12 | Y 1D-13 |
|-----------------------------|--------|--------|--------|---------|
| CTA/Mgd Futures             | 0.5%   | -0.1%  | -1.1%  | 2.2%    |
| S&P GSCI Commodity (SPGSCI) | 0.8%   | -0.1%  | -2.4%  | 0.0%    |
| DJ-UBS Commodity (DJAGK)    | 0.7%   | -4.1%  | -4.1%  | -1.7%   |

Source: Citi Prime Finance: FactSet.

### **Hedge Fund Performance by Age**



Source: Citi Prime Finance.

## **Hedge Fund Performance by Size**



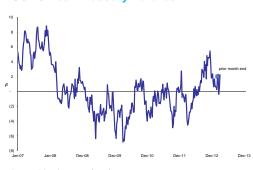
Source: Citi Prime Finance.

## Large Speculator Positions: CFTC Commitment Of Traders (Futures & **Options) Report Net of Longs Less Shorts as Percent of Total Open Positions**

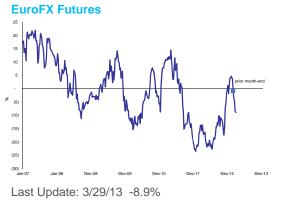




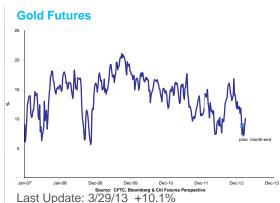




Last Update: 3/29/13 +2.2%



Source: CFTC, Bloomberg, Citi Futures Perspective.



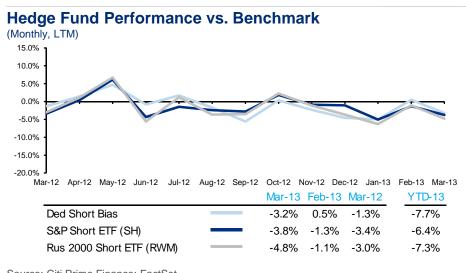
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



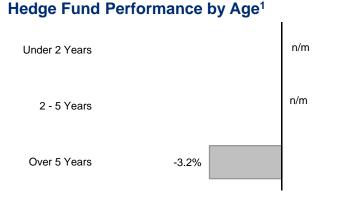


## **Dedicated Short Bias**

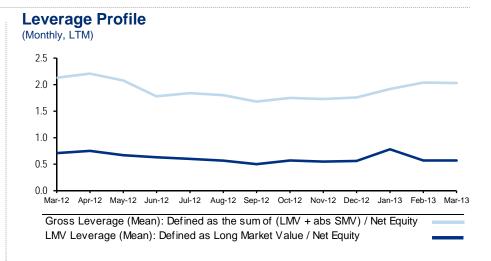
|                     | Jan   | Feb  | Mar   | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | YTD   |
|---------------------|-------|------|-------|-----|-----|-----|-----|-----|------|-----|-----|-----|-------|
| Citi-derived Median | -5.0% | 0.5% | -3.2% |     |     |     |     |     |      |     |     |     | -7.7% |



Source: Citi Prime Finance; FactSet.

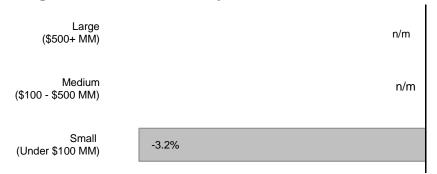


Source: Citi Prime Finance.



Source: Citi Prime Finance.

### Hedge Fund Performance by Size<sup>1</sup>



Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

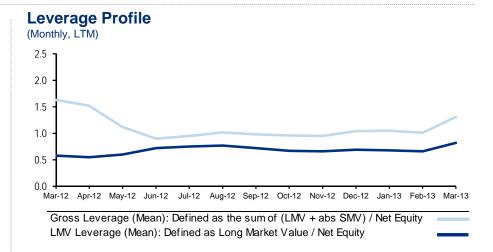


## **Distressed**



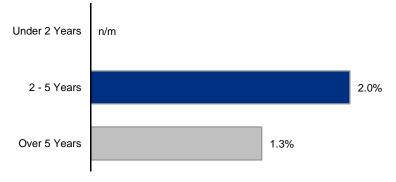
#### **Hedge Fund Performance vs. Benchmark** (Monthly, LTM) 15.0% 10.0% 5.0% 0.0% -5.0% -10.0% Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Jan-13 Feb-13 Mar-13 YTD-13 Distressed 1.6% 0.8% 5.1% 1.0% Citi HY Bond Index 1.3% -0.8% 1.7% 1.1%

Source: Citi Prime Finance; Citigroup Index LLC; Altman-NYU Salomon Center.



Source: Citi Prime Finance.

## Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.



Hedge Fund Performance by Size<sup>1</sup>

Small (Under \$100 MM) 1.3%

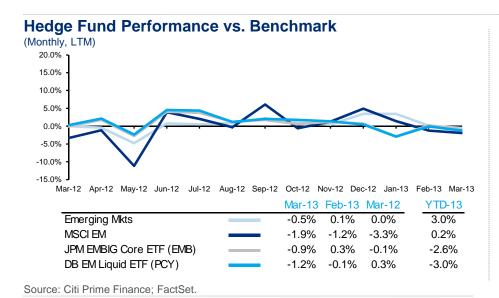
Source: Citi Prime Finance.

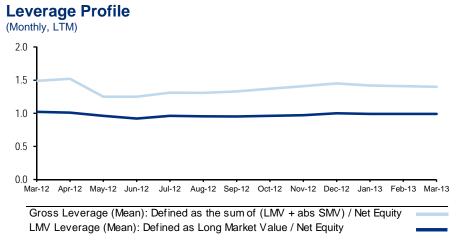
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# **Emerging Markets**





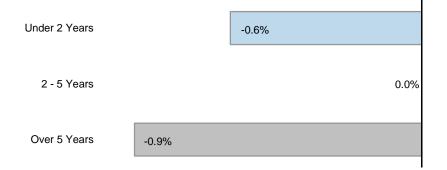


Source: Citi Prime Finance.

Hedge Fund Performance by Size<sup>1</sup>

-0.7%

## Hedge Fund Performance by Age<sup>1</sup>





Source: Citi Prime Finance.

(Under \$100 MM)

Small

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

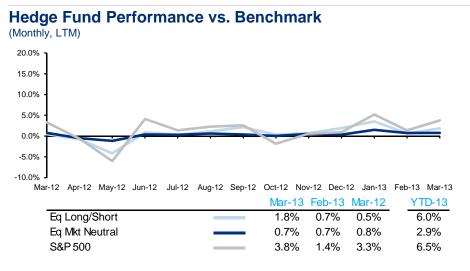
1. Universe and sample sizes may be small.

Source: Citi Prime Finance.



# **Equity Long/Short**





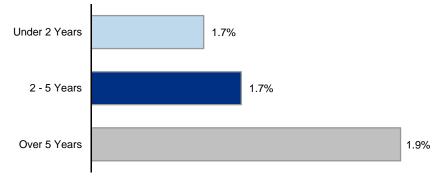
Source: Citi Prime Finance; FactSet.

# (Monthly, LTM) 2.9 2.6 2.4 2.1 1.9 1.6 1.4 1.1 0.9 0.6 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Jan-13 Feb-13 Mar-13 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

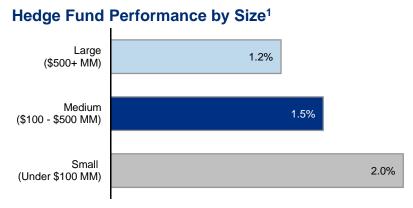
Source: Citi Prime Finance.

**Leverage Profile** 

## Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.



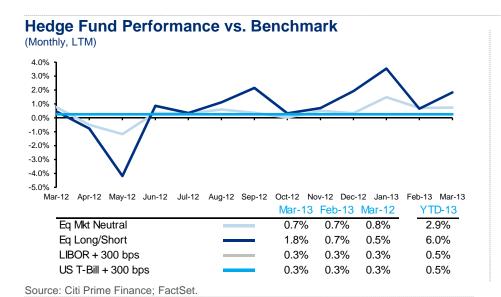
Source: Citi Prime Finance.

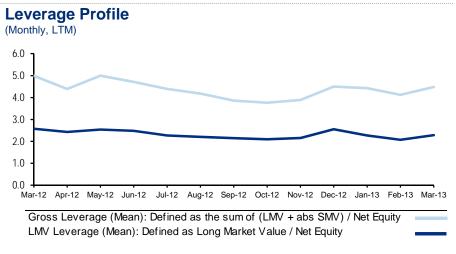
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# **Equity Market Neutral**

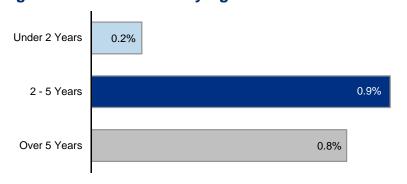
|                     | Jan  | Feb  | Mar  | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | YTD  |
|---------------------|------|------|------|-----|-----|-----|-----|-----|------|-----|-----|-----|------|
| Citi-derived Median | 1.5% | 0.7% | 0.7% |     |     |     |     |     |      |     |     |     | 2.9% |





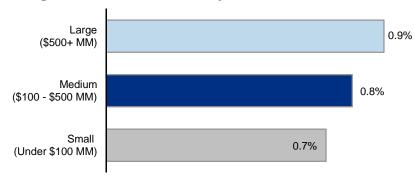
Source: Citi Prime Finance.

## Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.





Source: Citi Prime Finance.

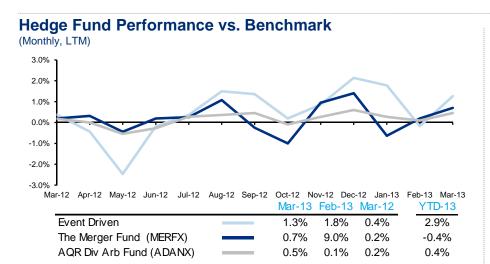
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.



## **Event Driven**



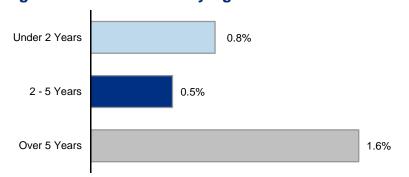


Source: Citi Prime Finance; FactSet.

# Leverage Profile (Monthly, LTM) 6.0 5.0 4.0 3.0 2.0 1.0 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Jan-13 Feb-13 Mar-13 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity

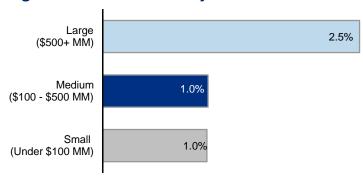
Source: Citi Prime Finance.

## Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.

## Hedge Fund Performance by Size<sup>1</sup>



LMV Leverage (Mean): Defined as Long Market Value / Net Equity

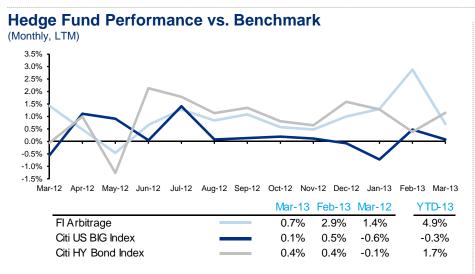
Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. 1. Universe and sample sizes may be small.



# FI Arbitrage

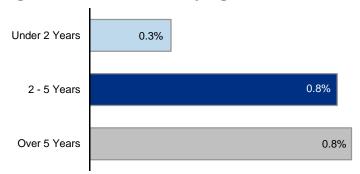




**Leverage Profile** (Monthly, LTM) 6.0 5.0 4.0 3.0 2.0 1.0 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Jan-13 Feb-13 Mar-13 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

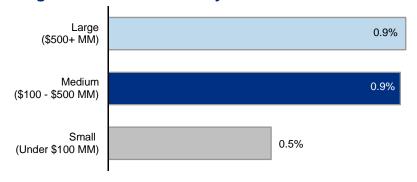
Source: Citi Prime Finance; Citigroup Index LLC.

### Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.

Hedge Fund Performance by Size<sup>1</sup>



Source: Citi Prime Finance.

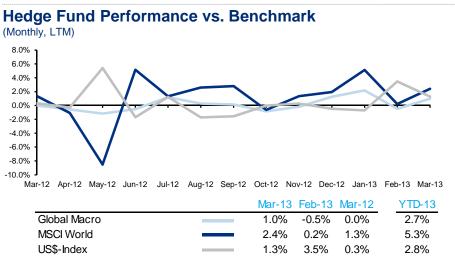
Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



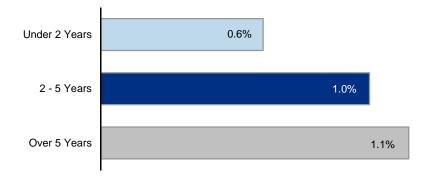
## Global Macro





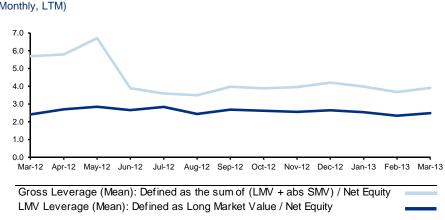
Source: Citi Prime Finance; FactSet.

# Hedge Fund Performance by Age<sup>1</sup>



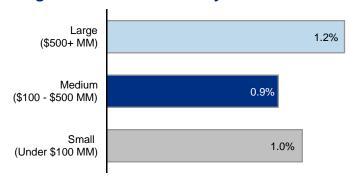
Source: Citi Prime Finance.





Source: Citi Prime Finance; FactSet.

## Hedge Fund Performance by Size<sup>1</sup>



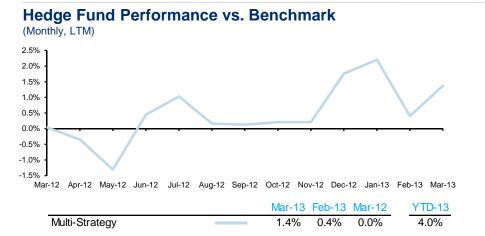
Source: Citi Prime Finance; FactSet.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. 1. Universe and sample sizes may be small.



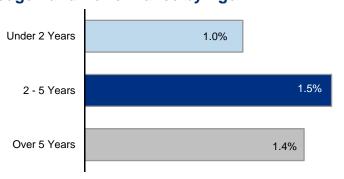
# Multi-Strategy





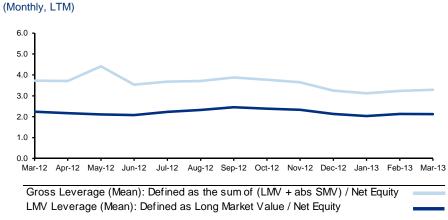
Source: Citi Prime Finance.

## Hedge Fund Performance by Age<sup>1</sup>



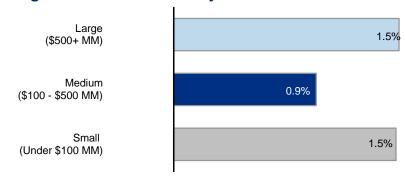
Source: Citi Prime Finance.

## **Leverage Profile**



Source: Citi Prime Finance.

## Hedge Fund Performance by Size<sup>1</sup>



Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



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